

CHARTER

DOE PROCEDURES TOPICAL COMMITTEE

PURPOSE

The Department Of Energy (DOE) Procedures Topical Committee of the DOE Technical Standards Program is chartered to support the Department's evolving implementation of Integrated Safety Management System (ISM) throughout the DOE. Toward that goal the Topical Committee as directed will coordinate technical standards activities related to the development, management and use of procedures. The Committee will also facilitate the interaction of DOE and DOE contractor personnel who share common interests in the vital role that procedures play in fostering a standards-based safety culture and supporting the effective design and performance of work at all organizational levels. The scope of the Committee's interest encompasses all types of management and work performance procedures ranging from policy and program documents to floor level work instructions. Administrative, technical, program, maintenance, testing and emergency are examples of procedure types included within the Committee's purview.

STATEMENT OF NEED

Requirements for using procedures for performance of work are well established in DOE Directives, contracts and contractor Integrated Safety Management System descriptions. However concerns about the development and use of procedures continue to be identified in accident investigations, Office of Oversight appraisals and Price Anderson investigations. Much effort has been invested in developing tools to assist in implementing the principles and functions of Integrated Safety Management including ISM guidance documents and activity level tools. There has yet to be developed clear expectations on how to integrate requirements, tools and knowledgeable people to develop, verify and validate procedures. This lack of integration of the right people, right requirements and the right tools has been a significant causal factor in accidents at Oak Ridge, Idaho, Hanford and other locations. The Technical Standards Procedure Topical Committee is chartered to support development of clear and concise guidance on how to develop and validate workable procedures that support implementation of the Safety Management System. The benefits of such guidance are:

1. Use of properly developed, technically sound, validated procedures will eliminate a principal cause of unsafe work
2. DOE expectations for procedure development and validation will be documented and communicated to DOE contractors
3. Contractor procedure management systems that conform to the DOE expectations can resolve problems of recurring procedure findings from self assessments, appraisals and Price Anderson investigations, thus avoiding re-work, reducing costs and eliminating violation fines

BACKGROUND ON FORMATION OF TOPICAL COMMITTEE

The Department's policy to implement Integrated Safety Management (DOE P 450.4) as a standards-based systems approach provides a framework to clearly describe how work is planned and performed consistent with statutory and contractual expectations for safety and quality. A focus on procedures is a critical next step in achieving an ISM culture in which work practices are defined for each ISM function with the full ownership and acceptance of all involved workers. Procedures link critical actions for planning and performing work and transmit the accumulated knowledge of effective work practices. They also provide a valuable mechanism for incorporating lessons learned and promoting continuous improvement. Confidence in the reliability of procedures depends on a sound, well-defined process for developing procedures that builds in both safety and effectiveness.

In addition to supporting full deployment of ISM a number of other factors point to a need for contemporary guidance on the development and management of effective procedures. These factors include loss of institutional knowledge, enhanced regulatory and public expectations, and the necessity to demonstrate prudence in the management of DOE resources. The role of electronic delivery, storage, and retrieval of procedures is also a significant source of change to be reckoned with.

Much of the lost historical knowledge of design and operating practices is due to retirement of personnel. This is a trend that affects many government agencies and private industry with long operating histories. The changing missions of the Department necessitate that new work practices be developed and that similar work at multiple sites share good work practices. New approaches to contracting and the use of multiple subcontractors call for new approaches to integrating work planning and performance. Regulator and public expectations require that DOE and its contractors demonstrate to independent observers and stakeholders that systems and processes for performing work are consistent with regulatory requirements and best practices. The Congress and the public expect that work be conducted with a high degree of efficiency and prudence for financial and environmental resources. These multiple factors have shaped an environment in which procedures must reflect the dynamics of regulation, public expectations, quality, safety, changing work forces, changing work types, and sharing of effective practices.

The need for focused attention on procedures is supported by a review of existing DOE documents, guidance, and standards from other government bodies, standards developing organizations, and professional literature. A number of DOE Directives require the use of procedures. For example DOE Order 5480.19 Conduct of Operations and DOE Order 414.1A (along with 10CFR830.120) Quality Assurance establish requirements for procedure use. The DOE Implementation Plan for Accelerating Safety Management Improvements at the Pantex Plant (DNFSB Recommendation 98-2) addresses the importance of procedures. The Plan indicated that "substantial benefits" would be derived "from a systematic analysis of the hazards, and implementation of the operation controls through improved procedures written in a format more conducive to production technician understanding and adherence."

Analyses of DOE operations and events suggest that attention should be focused on procedure

development, management, and use. A 1998 report on Conduct of Operations by the Office of Oversight cites procedures as an item of concern. The report states that "...the quality of and adherence to operating procedures is inconsistent" and "...many site procedures are poorly prepared, do not address working conditions and are based on incomplete hazard analysis." The November 1999 DOE Performance Indicator Report states that of the 336 events reported in the first quarter of 1999, the root cause of 60 of these events was procedural with the majority attributed to defective or inadequate procedures. The recent Type A Accident Investigation Report of the December 8, 1999 Sodium-Potassium explosion at the Y-12 Plant at Oak Ridge noted a number of procedure issues as contributing causes to the event. The report states, "The December 1 NaK spill resulted from numerous deficiencies in the new procedure for crucible changeout....This accident highlighted weaknesses in programs and process essential to safety such as procedure quality, use and change control...."

With the decision to adopt the Integrated Safety Management System the Department began developing a series of guidance documents to assist DOE and contractors to implement the principles and functions of ISM. Various DOE sites and contractors used voluntary initiatives such as the Voluntary Protection Program, Enhanced Work Planning, the ISO 9000 Quality Assurance Standard and the ISO 14000 Environmental Management Standard to assist in implementing ISM. The DOE guidance documents support the Integrated Safety Management Policy DOE P 450 and include the ISMS Guide DOE G 450.4-1A, the Tailoring Guide DOE G 450.3-3, Attributes of Effective Implementation DOE G 450.3-2, The ISM Team Leaders Handbook DOE HDBK-3207-99, and the Work Smart Standards Users Handbook DOE MGMT-0002. The importance of procedures is referenced in these documents yet they do not provide guidance on how to develop effective procedures. In particular the ISMS Guide refers often to the use of procedures and manuals of practice and discusses how all elements of ISM must be fully integrated with the coordination of management, technical experts and workers to develop effective work controls. Within the body of DOE's Guides and Technical Standards one document, DOE-STD-1029-92 Writer's Guide for Technical Procedures, addresses the preparation of procedures. This document was issued in 1992, prior to the development of ISM, and does not provide guidance on the application of the ISM principles and functions to the development, management, and use of procedures.

A review of literature from other government agencies and industry on procedure development and management reveals that a number of guidance documents and professional papers have been published relating to highly complex technologies. Many are written for the commercial nuclear power industry and a few publications have been authored for the chemical industry. Related documents have been published as military specifications and handbooks. It remains for consensus documents to be developed that describe effective principles and practices for unconventional work such as is typically found in the DOE missions.

The Topical Committee can draw upon the knowledge of the DOE community and experts in other complex technology organizations as necessary to review or craft system-wide guidance on effective procedures and procedure management systems. It is important that DOE procedure guidance be based on the ISM principle of a tailored approach and that it promotes an enterprise view of procedure development and use for DOE and contractor organizations.

VALUE STATEMENT

The Procedures Topical Committee will promote the effective and efficient development, use, and management of procedures throughout the Department by sharing information, expertise, and resources for the development of procedures standards. The Committee's performance standard is federal and contractor procedure sets that meet or exceed model programs from the nuclear, chemical, and similar complex industries for safety, quality, and cost effectiveness. Nothing in these standards will prevent or discourage the implementation of innovative and cost-effective solutions to procedure related issues.

OBJECTIVES

Consistent with the Government Performance and Results Act (1993), the National Technology Transfer and Advancement Act (1995), and the President's Memorandum of June 1, 1998 - Plain Language in Government Writing:

- 1) Support Integrated Safety Management by focusing on standards-based approaches to implementing the ISM guiding principles and core functions.
- 2) Serve as the DOE focal point for procedures technical standards issues.
- 3) Function as the Preparing Activity/Reviewing Activity for developing procedure standards for the DOE Technical Standards Program Office (TSPO). In this capacity the committee will provide assistance to the Office of Primary Interest with coordination of newly published standards.
- 4) Be prepared to define the DOE-wide position on DOE, non-DOE government, and non-government consensus procedure standards published or in comment coordination.
- 5) Support the development, when the need arises, of procedure standards for national or international use.
- 6) Partner and interface with non-DOE standards development bodies (i.e., American National Standards Institute [ANSI]/American Nuclear Society [ANS]). Develop, when the need arises, a government-wide technical position on procedure standards for adoption by other non-DOE technical standards bodies.
- 7) Promote DOE-wide best practices in procedure methods and implementation of

methods and requirements.

8) Provide a path for procedure transfer from the DOE.

9) Establish and maintain liaison with other DOE topical committees having mutual interests through the TSPO. The Committee will advise other DOE technical committees on the preparation of standards related in subject matter and the correlation and consolidations of similar standards prepared by these committees, and promote cooperation among these technical committees in areas of common interest.

10) Form direct ties with counterpart standards development organization topical committees to participate in the development and review of national and international technical standards.

11) Identify procedure issues of concern for the Department.

12) Suggest procedure topics in need of additional research.

13) Perform other duties as needed.

MEMBERSHIP

Membership in the DOE Procedure Topical Committee is open to all DOE and DOE contractors with responsibility for managing and overseeing implementation of procedure requirements at DOE facilities. Every major DOE field element may have a representative on the topical committee. In addition Associate Members and Observers may be included from other Federal Agencies and private industry.

STEERING COMMITTEE

The DOE Procedures Topical Committee will be governed by a Steering Committee. A Secretariat will be selected to coordinate the Steering Committee activities.

SPONSORSHIP

The Procedures Topical Committee is a standing topical standards committee, sponsored by the DOE Technical Standards Program.

The following principles govern its operation:

1) Openness: Participation in committee standards development process will be open to persons who are directly and materially affected by the activity in question.

2) Balance of Interests: Any standards development activities undertaken by the committee will solicit representatives from categories of interest related to the subject matter.

3) Due Process: The Committee will provide an opportunity for a fair hearing to any individual or organization within DOE that believes an action or inaction of the committee may cause unreasonable hardship or potential harm.

4) Reporting: The Committee will report on procedure standards-related activities to the DOE TSPO on a frequency that is appropriate to the activity and consistent with the established responsibilities of the TSPO.

MEETINGS

Committee meetings will normally be held in conjunction with regularly scheduled workshops and conferences at which procedures management and oversight personnel attendance is expected. When the physical presence of the Committee is required, special meetings will be scheduled. These meetings will normally be hosted by the contractor at a DOE facility.

SUNSET PROVISION

The DOE Procedures Topical Committee will continue through December 31, 2002. Prior to this date, the Committee will re-evaluate the continuing usefulness, relevance, and need of the committee. By vote of the Committee, and with the concurrence of the Technical Standards Program, the Charter may be renewed for two years.

Approvals:

R.J. Serbu, Manager DOE Technical Standards Program

M. H. Sturdivant, Chair, Procedures Topical Committee

Date: March 15, 2000